

03-155228

## 2. What Is Claimed IS

(1) A diversity receiving apparatus, receiving with a plurality of receiving systems a transmitted signal  
5 formed by a training signal and a data signal, where the received signals quality is compared and the diversity receiving device selects the best of the received signals, comprising: a demodulating part which includes an adaptive automatic equalization part; a  
10 signal error level detecting part to detect the level of the error signal generated by the related adaptive equalization part; an average calculating part which calculates the average of the archived error signal levels detected by the related signal error level  
15 detecting part, each respectively equipped with a reception system as well as, comprised of a selection means for selecting the receiving system with the smallest error signal level average value compared among the respective signal errors calculated by said  
20 average calculating part.

(2) The apparatus according to claim 1, wherein said selection means outputs a stop signal to an unselected receiving system from among the plurality of receiving  
25 systems to stop an operation.

(3) A diversity receiving apparatus, receiving with a

plurality of receiving systems a transmitted signal formed by a training signal and a data signal, where the received signals quality is compared and the diversity receiving device selects the best of the

5 received signals, comprising: a signal separating part to separate the received training signal and the data signal; a measuring part equipped on each of the receiving systems to measure the quality of the separated training signal part as well as, a selecting

10 means for selecting the best receiving system based on the quality of the respectively compared training signal parts measured by each of said measuring parts, and an adaptive automatic equalizing part to equalize the signals received from the receiving system selected

15 by said selecting means.

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⑮ 発明の名称 ダイバーシティ受信装置

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# 明 細 書

## 1. 発明の名称

ダイバーシティ受信装置

## 2. 特許請求の範囲

(1) トレーニング信号とデータ信号とから構成される送信信号を複数の受信系で受信し、各々の受信系の受信品質を比較して、良好な受信系からの信号を選択するダイバーシティ受信装置において、適応自動等化部を具備した復調部と、該適応自動等化部が生成する誤差信号の強度を検出する誤差信号強度検出部と、該誤差信号強度検出部で検出された所定期間内における誤差信号強度の平均値を算出する平均値演算部とをそれぞれ各受信系に具備すると共に、前記各平均値演算部で算出された誤差信号の強度の平均値をそれぞれ比較して誤差信号の強度の平均値が最小な受信系を選択する選択手段を具備したことを特徴とするダイバーシティ受信装置。

(2) 前記選択手段は、複数の受信系のうち選択されなかった受信系に停止信号を出力してその動

作を停止させることを特徴とする請求項1記載のダイバーシティ受信装置。

(3) トレーニング信号とデータ信号とから構成される送信信号を複数の受信系で受信し、各々の受信系の受信品質を比較し、良好な受信系からの信号を選択するダイバーシティ受信装置において、受信された信号をトレーニング信号とデータ信号に分離する信号分離部と、分離されたトレーニング信号部分の受信品質を測定する測定部とをそれぞれ各受信系に具備すると共に、前記各測定部で測定されたトレーニング信号部分の受信品質をそれぞれ比較して受信品質が最良な受信系を選択する選択手段と、該選択手段で選択された受信系からの信号を等化する適応自動等化部とを具備したことを特徴とするダイバーシティ受信装置。

## 3. 発明の詳細な説明

### 〔発明の目的〕

### 〔産業上の利用分野〕

本発明は、ダイバーシティ受信装置に係り、特に適応自動等化器を具備したダイバーシティ受

# PATENT ABSTRACTS OF JAPAN

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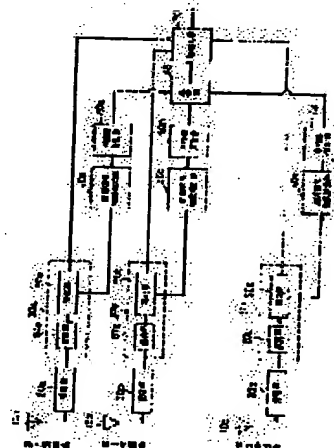
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## (54) DIVERSITY RECEIVER

### (57)Abstract:

**PURPOSE:** To improve the accuracy of measurement of an error rate by comparing the mean values of the intensity of an error signal generated by the adaptive automatic equalization of each receiving system respectively and selecting a receiving system whose mean value of the intensity is minimum.

**CONSTITUTION:** The error signal intensity calculated by mean value arithmetic sections 50a-50c of 1st-3rd receiving systems, that is, the mean value of the power of an error signal is compared by a comparison section 60 every time a training mode period of the signals received by each receiving system is finished, and a receiving system whose mean value of the power of the error signal is least is selected as the receiving system with the best reception quality. Then a switching section 70 is controlled based on the result of selection and a digital signal from a receiving system selected by the comparison section 60 is outputted as a final receiving signal.



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